

CLAIMS

What is claimed is:

1. An integrated circuit package, comprising:
 - a first die with a conductive side;
 - 5 a plurality of lead posts, wherein the conductive side of the first die faces the plurality of lead posts; and
 - an encapsulating material encapsulating the first die and an end of the lead posts adjacent to the conductive side of the die.
- 10 2. The integrated circuit package, as recited in claim 1, wherein the conductive side of the first die is mechanically and electrically connected to the plurality of lead posts.
- 15 3. The integrated circuit package, as recited in claim 2, wherein the conductive side comprises a plurality of spaced apart conductive pads, which are mechanically and electrically connected to the lead posts.
4. The integrated circuit package, as recited in claim 3, wherein the plurality of conductive pads is mechanically and electrically connected to the lead posts by conductive epoxy.
- 20 5. The integrated circuit package, as recited in claim 2, wherein the lead posts have equal spacing and pitch.

00608736-102600

6. The integrated circuit package, as recited in claim 2, wherein the lead posts have a square cross section.

7. The integrated circuit package, as recited in claim 2, wherein the lead posts have a round cross section.

8. The integrated circuit package, as recited in claim 2, wherein the lead posts have lengths which are substantially perpendicular to the conductive side of the first die.

9. The integrated circuit package, as recited in claim 2, further comprising a second die with a conductive side and a side opposite the conductive side, wherein the side opposite the conductive side is connected to a side opposite the conductive side of the first die.

10. The integrated circuit package, as recited in claim 9, further comprising wirebonding connected between the conductive side of the second die and at least one lead post of the plurality of lead posts.

11. A method for packaging integrated circuits, comprising:

providing a lead frame of a conductive material with a plurality of lead posts and a connecting sheet connecting the plurality of lead posts;

attaching a plurality of first dice to the lead frame, wherein each first die is electrically and mechanically connected to a plurality of the plurality of lead posts, and wherein a conductive side of each first die faces the plurality of lead posts; and

encapsulating the plurality of dice with an encapsulating material.

12. The method, as recited in claim 11, further comprising removing at least part of the connecting sheet to electrically isolate the plurality of lead posts from each other.

5 13. The method, as recited in claim 12, further comprising singulating the encapsulated first dice.

Subt B²
14. The method, as recited in claim 13, wherein attaching the plurality of first dice to the lead frame comprises placing a conductive epoxy between conductive pads on the plurality of dice and the plurality of lead posts.

10 15. The method, as recited in claim 14, further comprising testing the integrated circuit packages as a panel before the step of singulation.

15 16. The method, as recited in claim 15, wherein the removing of the connecting sheet forms lead fingers.

17. The method, as recited in claim 16, wherein the connecting sheet is an imperforate connecting sheet.

Subt B³
18. The method, as recited in claim 17, wherein the conductive side of a die of the plurality of dice comprises a plurality of spaced apart conductive pads, wherein the conductive epoxy electrically and mechanically connects each conductive pad to a post of the plurality of posts.

placing the conductive epoxy on an upper surface of each of the plurality of posts; and

placing a plurality of dice so that each conductive pad is placed into conductive epoxy on an upper surface of a post.

attaching a plurality of second dice to the plurality of first dice, wherein each second die has a conductive side and a side opposite the conductive side, wherein the side opposite the conductive side of each second die is connected to a side opposite the conductive side of a first die, wherein each second die has a plurality of conductive pads on the conductive side of the second die; and

wirebonding conductive pads of each second die to lead posts of the plurality of lead posts of the lead frame, wherein encapsulating the plurality of first dice encapsulates the plurality of second dice.

add
 B^4